

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1.-21. (Canceled)

22. (Currently Amended): A method for the preparation of cells suitable for treating a subject having amyloid deposits ~~transplantation into a mammal which cells are capable of forming amyloid deposits~~, said method comprising contacting the cells *in vitro* with an inhibitor of amyloid deposit formation, such that amyloid deposit formation is inhibited therein.

23. (Currently Amended): The method of any one of claims ~~according to claim~~ 22, 64, 67, and 68, wherein said inhibitor causes breakdown of amyloid deposits, the deposits having been formed by said cells prior to said contacting.

24. (Currently Amended): The method of any one of claims ~~according to claim~~ 22, 64, 67, and 68, wherein said cells are cultured in the presence of the inhibitor.

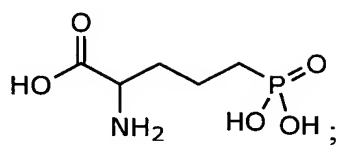
25.-26. (Canceled)

27. (Currently Amended): The method of any one of claims ~~according to claim~~ 22, 64, 67, and 68, wherein said inhibitor comprises a compound selected from the group consisting of

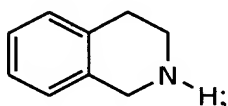
(i) 3-(3-hydroxy-1-propyl)amino-1-propanesulfonic acid



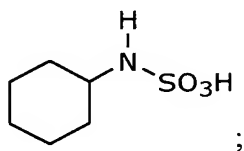
(ii) DL-2-amino-5-phosphovaleric acid



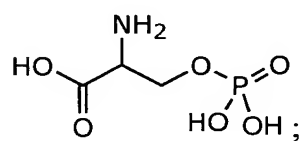
(iii) 1,2,3,4-tetrahydroisoquinoline



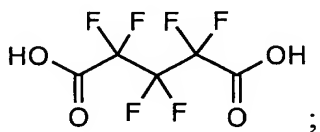
(iv) cyclohexylsulfamic acid



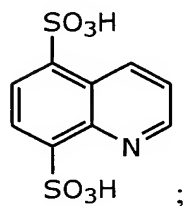
(v) *O*-phospho-L-serine



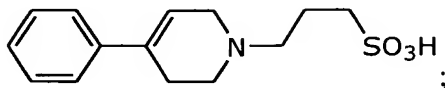
(vi) hexafluoroglutaric acid



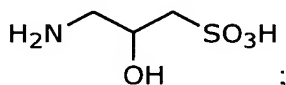
(vii) 8-methoxyquinoline-5-sulfonic acid



(viii) 4-phenyl-1-(3'-sulfopropyl)-1,2,3,6-tetrahydropyridine



(ix) 3-amino-2-hydroxy-1-propanesulfonic acid



(x) 3-dimethylamino-1-propanesulfonic acid



and pharmaceutically acceptable esters, acids, and salts thereof.

28.-31 (Canceled)

32. (Withdrawn): A culture medium or a culture medium pre-mix comprising a compound as defined in claim 27.

33. (Withdrawn): A culture of cells in which the culture medium is as defined in claim 32.

34. (Withdrawn): A culture according to claim 33 in which the cells are islet cells.

35. (Withdrawn): *Ex vivo* cells prepared by the method according to claim 22.

36. (Withdrawn): *Ex vivo* cells according to claim 35, wherein said cells are in a preparation comprising an inhibitor, wherein said inhibitor comprises a compound selected from the group consisting of

- (i) 3-(3-hydroxy-1-propyl)amino-1-propanesulfonic acid;
- (ii) DL-2-amino-5-phosphovaleric acid;
- (iii) 1,2,3,4-tetrahydroisoquinoline;

- (iv) cyclohexylsulfamic acid;
  - (v) *O*-phospho-L-serine;
  - (vi) hexafluoroglutaric acid;
  - (vii) 8-methoxyquinoline-5-sulfonic acid;
  - (viii) 4-phenyl-1-(3'-sulfopropyl)-1,2,3,6-tetrahydropyridine;
  - (ix) 3-amino-2-hydroxy-1-propanesulfonic acid; ~~or~~
  - (x) 3-dimethylamino-1-propanesulfonic acid;
- and pharmaceutically acceptable esters, acids, and salts thereof.

37.-40. (Canceled)

41. (Withdrawn) A pharmaceutical composition comprising a cell according to claim 35 and a pharmaceutically acceptable carrier or diluent.

42. (Canceled)

43. (Withdrawn) A vessel for containing a culture of cells, wherein said vessel is coated with a compound as defined in claim 27.

44. (Withdrawn): A kit for culturing cells comprising a culture medium or culture medium pre-mix as defined in claim 32.

45. (Canceled)

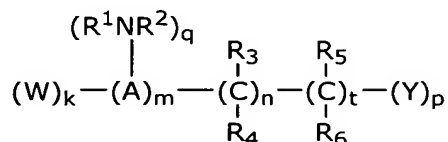
46. (Withdrawn): A method of identifying an inhibitor that can be used to prepare cells for transplantation in the method according to claim 22, comprising contacting a candidate substance with a mammalian cell and determining whether the candidate substance inhibits the formation of fibrils or causes the breakdown of fibrils indicating that the substance is an inhibitor that can be used in said process.

47. (Withdrawn): A method of identifying an inhibitor that can be used to prepare cells for transplantation in the method according to claim 22, comprising contacting a candidate substance with a protein capable of forming fibrils, or with a fibril, and determining whether the substance inhibits the formation of the protein into a fibril,

or whether the substance causes the breakdown of fibrils, indicating that the substance can be used in said process.

48.-52. (Canceled)

53. (Currently Amended): The method of any one of claims according to claim 22, 64, 67, and 68, wherein said inhibitor comprises a compound according to the formula



wherein

k, m, t, p and q are independently 0 or 1;

n is an integer from 0 to 3;

C is a carbon;

N is a nitrogen;

W is hydrogen or an anionic group at physiological pH;

Y is an anionic group at physiological pH;

R<sup>1</sup> and R<sup>2</sup> are independently hydrogen, alkyl, an anionic group at physiological pH, or R<sup>1</sup> and R<sup>2</sup>, taken together with the nitrogen to which they are attached, may form an unsubstituted or substituted heterocycle having from 3 to 7 atoms in the heterocyclic ring;

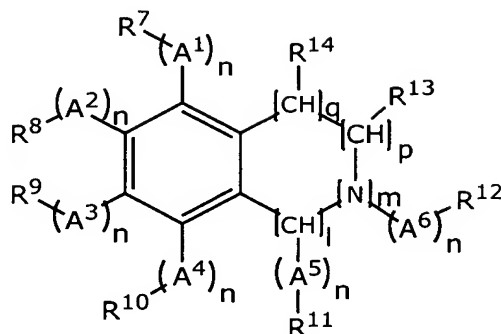
R<sup>3</sup> hydrogen, halogen, thiol or hydroxyl;

R<sup>4</sup>, R<sup>5</sup>, and R<sup>6</sup> are independently hydrogen or halogen; and

A is hydrogen or C<sub>1</sub> to C<sub>6</sub> alkyl;

and pharmaceutically acceptable esters, acids, and salts thereof.

54. (Withdrawn): The method according to claim 22, wherein said inhibitor comprises a compound according to the formula



wherein

C is a carbon;

N is a nitrogen;

H is a hydrogen;

A<sup>1</sup>, A<sup>2</sup>, A<sup>3</sup>, A<sup>4</sup>, A<sup>5</sup> and A<sup>6</sup> are independently alkyl, O, S, or -NH;

m and n (for each individual A group) are independently 0 or 1;

$p, q$  and  $l$  are independently 0, 1, or 2;

R<sup>7</sup>, R<sup>8</sup>, R<sup>9</sup>, R<sup>10</sup>; R<sup>11</sup>, R<sup>12</sup> and each R<sup>14</sup> are independently hydrogen, alkyl, alicyclyl, heterocyclyl or aryl, each R<sup>13</sup> is independently hydrogen, alkyl, alicyclyl, heterocyclyl, aryl or an anionic group, and adjacent R groups may form an unsubstituted or substituted cyclic or heterocyclic ring;  
and pharmaceutically acceptable esters, acids, and salts thereof.

55. (Currently Amended): The method according to claim 22 or 64, wherein the cells are islet, liver, muscle, kidney, neuronal, or stem cells.

56. (Currently Amended): The method of any one of claims according to claim 22, 64, 67, and 68, wherein the cells are human, primate, rodent, rabbit, ovine, porcine, feline, bovine, hircine, or canine cells.

57. (Currently Amended): The method according to claim 22or 64, wherein the amyloid deposits comprise islet amyloid polypeptide, A $\beta$  peptide, prion protein, immunoglobulin light chain, amyloid A protein, transthyretin, cystatin,  $\beta$ 2-microglobulin, apolipoprotein A-1, gelsolin, calcitonin, atrial natriuretic factor, lysozyme variants, insulin, or fibrinogen.

58. (Currently Amended): The method according to claim 22 or 64, wherein the cells are islet cells and the deposits comprise islet amyloid polypeptide.

59. (New) The method according to claim 22, wherein the disease is selected from the group consisting of: diabetes, Alzheimer's disease, a spongiform encephalopathy, primary or secondary systemic amyloidosis, familial amyloidotic polyneuropathy, senile systemic amyloidosis, hereditary cerebral amyloid angiopathy, haemodialysis-related amyloidosis, Finnish hereditary amyloidosis, medullary carcinoma of the thyroid, atrial amyloidosis, lysozyme amyloidosis, and fibrinogen  $\alpha$ -chain amyloidosis.

60. (New) The method according to claim 22, wherein the disease is diabetes.

61. (New) The method of claim 60, wherein the diabetes is type I diabetes.

62. (New) The method of claim 60, wherein the diabetes is type II diabetes.

63. (New) The method according to claim 22, wherein the disease is Alzheimer's Disease.

64. (New) A method for the preparation of cells suitable for treating a subject having diabetes, said method comprising contacting *in vitro* said cells which are capable of forming amyloid deposits with an inhibitor of amyloid deposit formation, such that amyloid deposit formation is inhibited.

65. (New) The method according to claim 64, wherein the subject has type I diabetes.

66. (New) The method according to claim 64, wherein the subject has type II diabetes.

67. (New) A method for the preparation of islet cells suitable for treating a subject that can benefit therefrom, said method comprising contacting *in vitro* said islet cells which are capable of forming amyloid deposits with an inhibitor of amyloid deposit deposition, such that amyloid deposit formation is inhibited.

68. (New) A method for the preparation of cells suitable for treating a subject that can benefit therefrom, said method comprising contacting liver, muscle, neuronal or stem cells *in vitro* with an inhibitor of amyloid deposit formation, such that amyloid deposit formation is inhibited.

69. (New) The method of any one of claims 22, 64, 67, and 68 further comprising transplanting the cells into the subject.

70. (New) The method of claim 69, further comprising administering a therapeutically effective amount of inhibitor to the subject.

71. (New) The method of claim 70, wherein the inhibitor comprises a pharmaceutically acceptable carrier.

72. (New) The method of any one of claims 22, 64, 67, and 68, wherein the cells are from the subject.

73. (New) The method of any one of claims 22, 64, 67, and 68, wherein the cells are from a donor.